

This finding will help to develop diagnostic tools that can be used to predict treatment response before interferon-based therapy. It also provides insights into the molecular mechanism of interferon resistance in HCV infected patients.

**PP-142 The predictive value of viral response during treatment to sustained viral response obtaining in chronic hepatitis C personalized treatment programs**

Ming-hui Li\*, Yao Xie, Li-jun Chen, Guo-hua Qiu, Yao Lu, Dao-zhen Xu. *Department of Liver Diseases, Ditan Hospital, Beijing, PR China*

The antiviral effects of interferon in chronic hepatitis C is influenced by many factors, among which the personalized interferon and RBV dose, treatment course were the most important. The viral response during treatment was the composite expression of factors associated with treatment effects, and the very important predictive for sustained obtaining.

In this paper, the enrolled patients with chronic hepatitis C, were given the intensive treatment doses of interferon and ribavirin according to their basic clinical condition. In the treatment of 0, 4, 12, 24 weeks, the end of treatment and 24 weeks after treatment stop, the serum HCV RNA were determined, and according to the viral response on-treatment the individualization course was given, and the value of viral responses, including rapid viral response (RVR), defined serum HCV RNA undetectable at 4 week, and complete early viral response (cEVR), serum virus undetectable at 4 week, on-treatment was analysed predictive for SVR obtained. Given the personalized therapeutic program, 84.2% of patients obtained RVR, among which 90.7% obtained SVR. The RVR was not associated with HCV genotypes ( $\chi^2=6.00$ ,  $p=0.112$ ), but significantly with serum HCV RNA load baseline ( $t=2.15$ ,  $p=0.034$ ), which in RVR was  $\lg 5.883 \pm 1.246$  copies/ml, and  $\lg 6.502 \pm 0.693$  copies/ml in non-RVR. The RVR rate (87.8%) of naive patients interferon- $\alpha$ -2a was higher than that of retreatment patients (65.0%) significantly in pegylated interferon treatment group ( $\chi^2=4.651$ ,  $p=0.031$ ). 92.4% (122/132) of patients obtained cEVR, those in pegylated interferon  $\alpha$ -2a 180mg, 135mg and standard interferon group were 90.5%, 95.0% and 90.4%, and the difference among the three groups was not significant difference ( $\chi^2=0.981$ ,  $p=0.640$ ). The SVR rate of patients with cEVR was SVR was 90.8% (108/119), which was significantly higher than that, 55.56% (5/9), of patients with no cEVR rate (Fisher's exact test,  $p=0.007$ ). The cEVR rate between naive and retreatment patients was not difference ( $\chi^2=1.993$ ,  $p=0.158$ ), which were 94.7% (90/95) and 85% (17/20) respectively, and the difference of cEVR rate between genotype 1 and non 1 group was not significance also ( $\chi^2=6.000$ ,  $p=0.112$ ), 91.22% (52/57) and 96.29% (26/27) respectively. This study showed that, RVR and cEVR were significantly related to SVR, and personality therapy can improve the obtaining probability of RVR, cEVR and the SVR. According to the clinical characteristics of patients, given intensive doses of interferon and RBV, adjusted drug dose timely, and extended treatment of HCV RNA-negative course based on patient response were important in chronic hepatitis C personalized treatment.

**Poster Presentation – HIV/AIDS**

**PP-143 APOBEC3G/B/F mRNA levels in PBMC of HIV-infected patients and there correlation with CD4<sup>+</sup> T cell counts**

Zhenyan Wang\*,<sup>1,2</sup>, Hongzhou Lu<sup>2</sup>. <sup>1</sup>Shanghai Public Health Clinical Center; <sup>2</sup>Fudan University

**Background:** Apolipoprotein B mRNA-editing enzyme, catalytic

polypeptide-like 3G/B/F(hA3G/B/F) showed anti-HIV activity in vitro, though there correlation with HIV disease progression is not clear. Our aim is to quantitative investigate hA3G/B/F mRNA levels in HIV-infected patients, then analyze there correlation with CD4 counts.

**Methods:** Peripheral blood samples were collected from 21 HIV-infected subjects not taking antiretroviral therapy (ART) and 21 HIV-infected subjects receiving ART, and 10 HIV-uninfected controls. hA3G/B/F mRNA levels in PBMC were determined by real-time fluorescent quantitative PCR. Flow cytometry was used to detect CD4 counts.

**Results:** There was no correlation between hA3G/B/F mRNA levels and CD4 counts in either ART+ or ART- HIV-infected subjects. hA3G mRNA level in HIV-infected subjects was lower than that in HIV-uninfected controls ( $P<0.05$ ), but no statistical difference between ART+ and ART- groups ( $P>0.05$ ). However, significant difference were found in hA3B/F mRNA levels between the three groups ( $P<0.05$ ): ART- HIV-infected subjects < ART+ HIV-infected subjects < HIV-uninfected controls. hA3G/B/F mRNA levels were positively correlated with one another in ART+ HIV-infected subjects and HIV-uninfected controls, while not in ART- HIV-infected subjects.

**Conclusion:** hA3G/B/F gene expression levels do not directly correlate with HIV-1 disease progression. Host hA3G/B/F expression levels tend to decrease after HIV-1 infection, and ART may elevate hA3B/F mRNA levels, but not for hA3G. The function of hA3 family proteins in anti-HIV infection needs further study.

**PP-144 Substitution treatment implementations in Ukraine – impact on HIV prevalence**

Dmitry Metlitsky\*. *All-Ukrainian Network of PLWHAs*

Substitution treatment is recognized as effective part of biomedical preventions and one of the main tools of HIV/AIDS epidemic control among IDU's. ST admitted as essential choice for IDU if ones fail rehabilitation programs.

Although Ukraine has the highest HIV-prevalence in Eastern-Europe regions (large portion of vulnerable populations consists of IDU's), ST implementation was under the major focus of donors (Global Fund, Sunrise, Clinton Foundation).

By the reason ST was quit new activity for Ukraine vertical model of implementation – from center to regions were chosen. It meant that advocacy for needed decrees from Ministry of Health, drugs regulation authorities was made on the national level. Then a number of regional sites were opened.

In result regional medical authorities asked for help in meeting of requirement in ST sites, they started to participate in project competitions for sites financing, they realized advantages of new model of work with IDU's.

As conclusion it should be mentioned that central advocacy work saved time and made regional implementation of program much easier. As the second phase – regions begun plan their activities accordingly needs of the regions. Governmental authorities were satisfied with decreasing of HIV transmission among IDU, more social reliability of patients and lower mortality rate among them.

Statistic data is available.

**PP-145 P53 and mitochondrial toxicity induced by AZT**

Dexi Chen\*, Yu Sun, Yasong Wu, Hao Wu, Xinyue Chen. *Beijing You An Hospital Capital Medical University*

The mitochondrial toxicity of nucleoside reverse transcriptase inhibitors (NRTIs) is due to the inhibition of mitochondrial DNA (mtDNA) polymerase  $\gamma$  (Pol  $\gamma$ ), resulting in a blockade of mtDNA replication and subsequent disruption of cellular energetics<sup>1</sup>. Previous study showed that p53 play a direct role through interaction with DNA Pol  $\gamma$  or mitochondrial transcription factor